

Full Pipeline Survey Spread



For the first time, a full pipeline survey spread has been fitted to a Saab Seaeeye ROV in the shape of the Panther XT Plus. The innovation is to bring considerable savings in survey operating costs to operators when compared to deploying a 150hp hydraulic work-class vehicle for the task. Being acoustically quieter than a hydraulic vehicle, an electric ROV will also produce more accurate multi-beam sonar data.

Making this possible is the power of the Panther XT Plus. This ROV offers a powerful platform for a wide variety of tooling that expands the scope of work tasks possible in a compact vehicle.

With 10 thrusters - eight giving horizontal drive - and having 50% more power than any other ROV in its class, the Panther XT Plus can handle the large array of equipment needed for full pipeline survey work - and keep working in currents at which other ROVs must be withdrawn from active service.

The installation of a complete pipeline survey system on a compact electric ROV is considered a significant technological achievement, particularly as it must work alongside other systems, including two powerful four and seven-function Schilling Orion manipulators and a contact CP measurement system, amongst other possible tools.

The survey spread installed on the Panther XT Plus is a complete system that includes a Teledyne TSS pipe-tracker for precise location of pipes; two Reson SeaBat 7125 multi-beam sonars with dual frequency operation for collection of seamless high resolution survey data; a Sonardyne LodeStar inertial navigation system, a Doppler velocity log, camera booms and wheeled skid.

The technology necessary to achieve this breakthrough has come from creating a design of ROV that gives more space for tooling, an increased number of data interfaces including a Gigabit Ethernet multiplexer serial data interface, more power supplies, and an enhanced hydraulic system to handle a wide and powerful range of tooling.

The main benefit for operators is the savings in the cost of ownership that comes from using a smaller and lighter vehicle that needs less deck space - around a quarter of an equivalent hydraulic vehicle - and fewer crew. It also costs less to acquire and maintain.

Operators quote the ease of moving a 14 ton system compared to one weighing 60 tons, also a faster set-up time of 12 hours rather than four days, and needing 150kVA of power generation instead of 500kVA.

An added bonus when working to a tight deadline in hazardous conditions is that ten thrusters in hand offer a reassuringly high degree of redundancy, should one or more thruster become fouled - thereby allowing the operator to keep the ROV on task until recovery.

First to order the Panther XT Plus with a full pipeline survey package is Aberdeen-based ROVOP Ltd who undertook extensive trials of the ROV in May, with the survey package fitted, and have now purchased two systems.